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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,476	08/16/2001	Kazuo Ogino	330-239	9934
23117	7590	05/13/2004	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			HUG, ERIC J	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 05/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,476

Applicant(s)

OGINO ET AL.

Examiner

Eric Hug

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,11 and 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-22 and 26-28 is/are allowed.
- 6) ☒ Claim(s) 10,11,19 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

Claims 20 and 26 are objected to because of the following informalities:

The phrase "is charged" appears to be missing. Also, the qualifier "the" before the word "distance" should be deleted. Appropriate correction is required.

Both claims read "... wherein a glass raw material charging rate and/or a molten glass withdrawal rate are controlled so that the depth of the molten glass in a position where the glass raw material [is charged] is adjusted to be 1.5 to 3 times as large as the a distance between a glass raw material charging port and a liquid surface of the molten glass." The bracketed portion indicates the missing phrase.

The corrections above are consistent with the language of previous claim 13 which was indicated as allowable and incorporated into new claims 20 and 26.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 10, 11, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Yanagita et al (US 5,246,892). Yanagita discloses a method of melting phosphate glass to avoid platinum inclusions in the glass product when the raw materials are melted in a platinum crucible. In column 4, lines 3-10, it is disclosed that melting is preferred to be carried out in an oxidizing atmosphere. To provide the oxidizing atmosphere, an oxidizing gas is provided by

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flowing the gas over the surface of the molten glass in the crucible or by bubbling the gas into the molten glass within the crucible. The oxidizing gas can be selected from a number of different gases. Since raw materials are directly added to the crucible, they are added in the position of the bubbling. See as an example, Examples 42 and 43, column 5, lines 50-52, where it says that an oxygen gas was flowed into the crucible through a glass tube while the glass composition mixture was melting. Although Yanagita does not express the need to oxidize free phosphorus generated by decomposition of the raw material, this is considered to be an inherent result of the melting of phosphate raw materials and subsequent oxidizing by gas to prevent platinum inclusions.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 11 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagita et al (US 5,246,892) in view of Broemer et al (US 3,847,624). Yanagita (described above) discloses a method of melting phosphate glass to avoid platinum inclusions in the glass product when the raw materials are melted in a platinum crucible. In order to prevent the platinum inclusions, an oxidizing gas is provided by flowing the gas over the surface of the molten glass in the crucible or by bubbling the gas into the molten glass within the crucible. Yanagita does not expressly disclose using metaphosphate or fluorophosphate raw materials, these however these are considered to be well known subsets of phosphate glass materials that would also inherently form free phosphorus by decomposition of the raw material. Broemer is cited

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here to exemplify that fluorophosphate glasses are known types of phosphate glasses prepared from fluorine-containing compounds and metaphosphate compounds, and that the raw materials are melted in a platinum crucible.

Allowable Subject Matter

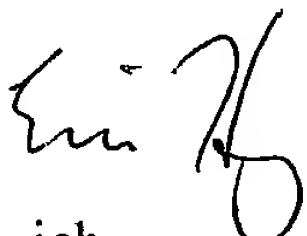
Claims 20-22 and 26-28 are allowed.

Claims 20-22 and 26-28 are allowed for specifying that the depth of the molten glass in the position where the glass raw material is charged is adjusted to be 1.5 to 3 times as large as the distance between the raw material charging port and the liquid surface of the molten glass.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192. The examiner can normally be reached on Monday through Friday, 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


jeh